

Notice of Allowability

Application No.

09/611,069

Examiner

Ricardo Pizarro

Applicant(s)

KIM ET AL.

Art Unit

2661

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/1/04.
2. ☒ The allowed claim(s) is/are 1-10, 19, 22-29, 48-56, 67. They have been renumbered 1-29.
3. ☒ The drawings filed on 06 July 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


KENNETH VANDERPUYE
PRIMARY EXAMINER

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Examiner's Amendment

1. An Examiner's amendment for the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Mr. Douglas Owens on 9/8/04

2. **CLAIMS HAVE BEEN AMENDED AS FOLLOW:**

Claim 48

In line 5 "form" has been replaced with -from-

Examiner's statement of reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: For claims 1, 21 and 24, no prior art of record was found for a transport format combination indicator (TFCI) encoding apparatus in a CDMA mobile system comprising a one-bit generator for generating a sequence having the same symbols, a basis orthogonal sequence generator, a basis mask sequence generator and an operation unit receiving TFCI bits that are divided into a first information part representing a biorthogonal sequence, a second information part representing orthogonal sequence conversion and a third information part representing mask sequence conversion and adding an orthogonal sequence selected from the basis orthogonal sequence based on said second part and a mask sequence selected based on said third part.

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For claims 48 and 53 no prior art of record was found for a TFCI decoding apparatus in a CDMA mobile system comprising a mask sequence generator, an operation circuit for receiving signals from said mask generator and removing a mask sequence from an input signal by multiplying the mask sequences by the input signal, a correlator for receiving signals from said operation circuit sequentially and wherein a correlation comparator determines the highest correlation value of the sequentially largest correlation values from the correlator and outputting an orthogonal sequence index and a mask sequence index corresponding to the highest correlation value.

For claim 67 no prior art of record was found for a mask sequence generating method for use in a TFCI encoding and decoding comprising selecting a Gold sequence which is determined by adding a first m-sequence and a second m-sequence each generated by different generation polynomial, generating a first m- sequence group and a second m- sequence group and determining a column transposition function that converts sequences in said first m- sequence group to orthogonal sequences and generating mask sequences of the TFCI coding/decoding.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (7571) 272-

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3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM. The fax number for this Group is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kenneth Vanderpuye**, can be reached on (571) 272-3078.

Ricardo M. Pizarro



KENNETH VANDERPUYE
PRIMARY EXAMINER